Appl. No. 10/630,487
Amdt. dated Nov. 21, 2005
Reply to Office Action of July 21, 2005

Amendments to the Specification:

Please replace the paragraph 0007 (page 2, lines 17-24) with the following amended paragraph:

[0007] One drawback of today's devices is the manual nature of choosing <u>with</u> which communication device to initiate a communication [[with]]. For example, it can be tedious to locate a contact by randomly calling the contact's office telephone, then his mobile phone, and then send a message to his messaging device as described previously. In a mobile environment, especially while driving, it can be time consuming, and cumbersome, to continue to access the contact directory each time a new call has to be started because the intended <u>person</u> [[persons]] is not answering the previously called numbers.

Please replace the paragraph 0008 (page 3, lines 2-6) with the following amended paragraph:

[0008] The accompanying figures, where like reference numerals refer to identical or functionally similar elements throughout the separate views and which together with the detailed description below[[,]] are incorporated in and form part of the specification, serve to ~~further~~ illustrate various embodiments and to explain various principles and advantages all in accordance with the present invention.

Please replace the paragraph 0013 (page 3, lines 16-24) with the following amended paragraph:

[0013] As required, detailed embodiments of the present invention are disclosed herein; however, it is to be understood that the disclosed embodiments are merely exemplary of the invention, which can be embodied in various forms. Therefore, specific structural and functional details disclosed herein are not to be interpreted as limiting, but <u>rather should be interpreted</u> merely as a basis for the claims and as a representative basis for teaching one skilled in the art to variously employ the present invention in virtually any appropriately detailed structure. Further, the terms and phrases used herein are not intended to be limiting; but rather[[,]] <u>are intended</u> to provide an understandable description of the invention.

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Please replace the paragraph 0014 (page 4, lines 1-12) with the following amended paragraph:

[0014] The terms "a" or "an," as used herein, are defined as one or more than-one. The term "plurality," as used herein, is defined as two or more than-two. The term "another," as used herein, is defined as at least a second or more. The terms "including" and/or "having," as used herein, are defined as comprising (i.e., open language). The term "coupled," as used herein, is defined as connected, although not necessarily directly[[,]] and not necessarily mechanically. The terms "program," "software application," and the like, as used herein, are defined as a sequence of instructions designed for execution on a computer system. A program, computer program, or software application may include a subroutine, a function, a procedure, an object method, an object implementation, an executable application, an applet, a servlet, [[a]] source code, [[an]] object code, a shared library/dynamic load library and/or other sequence of instructions designed for execution on a computer system.

Please replace the paragraph 0019 (page 6, line 15 through page 7, line 2) with the following amended paragraph:

[0019] Coupled to the transceiver 110[[,]] is the processor 115 utilizing conventional signal-processing techniques for processing received messages. It will be appreciated by one of ordinary skill in the art that additional processors can be utilized as required to handle the processing requirements of the processor 115. The processor 115 decodes an identification in the demodulated data of a received message, compares the decoded identification with one or more identifications stored in an identification memory 180 of the memory 120, and when a match is detected, proceeds to process the remaining portion of the received message. The one or more identifications, for example, can be a unique selective call address assigned within a wireless communication system, an electronic mail address, an IP (internet protocol) address or any other similar identification.

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Please replace the paragraph 0023 (page 8, line 20 through page 9, line 13) with the following amended paragraph:

[0023] Preferably, the user interface 135 is coupled to the processor 115. The user interface 135 can include a keypad, such as one or more buttons used to generate a button press or a series of button presses. The user interface 135 can also include a voice response system or other similar method of receiving a manual input initiated by the device user. The processor 115, in response to receiving a user input via the user interface 135, performs commands as required. For example, the user interface 135 can be utilized for performing functions related to the messages stored in the message memory 150, such as reading, replying, or deleting one or more stored messages. The user interface 135 can further be used to perform functions on one or more contacts stored in the contact memory 155, such as accessing, adding, deleting, or changing information related to one or more contacts. The user interface 135, in conjunction with the display 130 and/or the alert 125, can further be used to access the contact memory 155 for finding one or more contact numbers to initiate a communication with. The user interface 135 further can be used to change one or more user preferences stored in the contacts preferences memory 160. The user interface 135 further can be used to perform functions on one or more calendar events stored within the calendar memory 175, such as accessing, adding, deleting, or changing information or preferences related to one or more calendar events.

Please replace the paragraph 0028 (page 11, lines 1-13) with the following amended paragraph:

[0028] FIG. 3 illustrates an exemplary embodiment of a contact preferences directory 300 stored within the contacts preferences memory 160 of the communication device 100 of FIG. 1. The contact preferences directory 300 preferably stores one or more contacts 305 along with one or more communication preference information 335 associated with each of the one or more contacts. The communication preference information 335 preferably includes a communication preference 310, a schedule 315, and a communication means order 340, such as a first communication means 320, a second communication means 325, a third communication means 330, and the like. It will be appreciated by those of ordinary skill in the art that although three

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communication means are illustrated, any number of communication means can be included. Further, it will be appreciated by those of ordinary skill in the art that additional communication means can be added and current communication means can be deleted by the device user either manually via the user interface 135 or via a received signal.

Please replace the paragraph 0030 (page 12, lines 3-13) with the following amended paragraph:

[0030] To exemplify the manner in which information is stored within the contact preferences directory 300, FIG. 3 illustrates the communication preference information 335 for contact A (205), contact B (210) through contact N (225). As illustrated, the user of the communication device 100 has entered the pattern communication order 350 for the communication preference 310 for contact A (205) for the schedule 315 of all periods of time. The pattern communication order 350 at the current time illustrated provides for the first communication means 320 to be contact A's cellular telephone, the second communication means 325 to be contact A's home telephone, and the third communication means 330 to be contact A's messenger. Therefore, the communication connection sequence for contact A (205), as described hereafter in FIGs. 4 through 9, would be this order.

Please replace the paragraph 0031 (page 12, lines 14-21) with the following amended paragraph:

[0031] As illustrated in FIG. 3, for contact B (210), the user of the communication device 100 has entered the fixed communication order 345 for the communication preference 310 for the schedule 315 of all periods of time. The fixed communication order 345 illustrated provides for the first communication means 320 to be contact B's office telephone, the second communication means 325 to be contact B's home telephone, and the third communication means 330 to be contact B's cellular telephone. Therefore, the communication connection sequence, as described hereafter in FIGs. 4 through 9, for contact B (210) would be this order.

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Please replace the paragraph 0032 (page 12, line 22 through page 13, line 19) with the following amended paragraph:

[0032] As illustrated in FIG. 3, for contact N (220), the user of the communication device 100 has entered the fixed time based communication order 355 for the communication preference 310 for the schedule 315 including three time periods (weekdays 8AM to 6PM, weekdays 6PM to 8AM, and weekends). The fixed time based communication order 355 during weekdays 8AM to 6PM illustrated provides for the first communication means 320 to be contact N's work telephone, the second communication means 325 to be contact N's messenger, and the third communication means 330 to be contact N's email. Therefore, the communication connection sequence, as described hereafter in FIGs. 4 through 9, for contact N (210) would be this order during weekdays 8AM to 6PM. The fixed time based communication order 355 during weekdays 6PM to 8AM illustrated provides for the first communication means 320 to be contact N's home telephone, the second communication means 325 to be contact N's cellular telephone, and the third communication means 330 to be contact N's messenger. Therefore, the communication connection sequence, as described hereafter in FIGs. 4 through 9, for contact N (210) would be this order during weekdays 6PM to 8AM. The fixed time based communication order 355 during weekends illustrated provides for the first communication means 320 to be contact N's home telephone, the second communication means 325 to be contact N's cellular telephone, and the third communication means 330 to be contact N's messenger. Therefore, the communication connection sequence, as described hereafter in FIGs. 4 through 9, for contact N (210) would be this order during weekends.

Please replace the paragraph 0033 (page 13, line 20 through page 17, line 2) with the following amended paragraph:

[0033] FIGs. 4 through 9 illustrate various embodiments of the operation of the communication device 100 of FIG. 1. FIG. 4 is a flowchart illustrating the overall intelligent communication management operation of the communication device 100 in accordance with the present invention. As illustrated, the process begins with node A. The process then continues with Step

400 in which the communication device 100 is in standby mode. Standby mode runs the communication device 100 with minimal power to conserve battery life. Next, in Step 405, the process determines whether or not a communication has been initiated. For example, the communication management application 140 can receive a signal from the processor 115 indicating that a communication connection has been initiated by the device user. When a call has not been initiated in Step 405, the process cycles back to the standby mode of Step 400. When a communication has been initiated in Step 405, the process continues with an [[and]] identification from [[of]] node H and then continues to Step 410 in which the process determines whether the communication has been connected. For example, the communications management application 140 receives a signal from the processor 115 indicating a communication connection has been established. When a communication connection has been established in Step 410 the process continues with node C being identified and then continues to Step 415 in which the communication continues with the connection recipient or device. The connection recipient, for example, can be one or more contacts. Next, in Step 420, the process determines whether the communication has been disconnected. In Step 425, when the communication has not been disconnected in Step 420, the process determines whether the communication has ended. For example, the originator or recipient of the communication can end the connection by hanging up. When the communication has been ended in Step 425, the process cycles back to the standby mode of Step 400. When the communication has not ended in Step 425, the process cycles back to Step 415 and the communication continues. In Step 430, when the initiated communication does not result in a connection in Step 410 or when the communication is disconnected in Step 420, the process determines whether the communication means associated with the initiated communication is stored within the contacts memory 155. For example, in response to a signal from the processor 115 indicating the disconnection or lack of answering of the initiated communication, the communications manager application 140 can compare the communication means to the contacts directory 200, identifying whether or not a match exists. When the communication means is not stored within the contacts directory 200, the process cycles back to the standby mode of Step 400. In Step 435, when the communication means is stored within the contacts memory 155, the process determines whether a fixed communication connection preference has been associated with the contact having the matching communication means. For

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example, the communications manager application 140 can identify the matching contact within the contacts directory 200 and then cross reference to the contact preferences directory 300 to determine whether the communication preference 310 for the identified contact is a fixed communication order 345. When the communication preference 310 is the fixed communication order 345 in Step 435, the process continues to node B. When the communication preference 310 is not the fixed communication order 345 in Step 435, the process continues to Step 440 in which the process determines whether a pattern communication connection preference has been associated with the contact having the matching communication means. For example, the communications manager application 140 can identify the matching contact within the contacts directory 200 and then cross reference to the contact preferences directory 300 to determine whether the communication preference 310 for the identified contact is a pattern communication order 350. When the communication preference 310 is the pattern communication order 350 in Step 440, the process continues to node D. When the communication preference 310 is not the pattern communication order 350 in Step 440, the process continues to Step 445 in which the process determines whether a time based communication connection preference has been associated with the contact having the matching communication means. For example, the communications manager application 140 can identify the matching contact within the contacts directory 200 and then cross reference to the contact preferences directory 300 to determine whether the communication preference 310 for the identified contact is a fixed time based communication order 355. When the communication preference 310 is the fixed time based communication order 355 in Step 445, the process continues to node E. When the communication preference 310 is not the fixed time based communication order 355 in Step 445, the process continues to Step 450 in which the process determines whether a calendar based preference has been associated with the contact having the matching communication means. For example, the communications manager application 140 can identify the matching contact within the contacts directory 200 and then cross reference to the contact preferences directory 300 to determine whether the communication preference 310 for the identified contact is a calendar based communication order. When the communication preference 310 is the calendar based communication order in Step 450, the process continues to node F [[G]]. When the communication preference 310 is not the calendar based communication order in Step 450, the

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process continues to node $\underline{G}$ [[F]]. The process described herein for FIG. 4 illustrates an exemplary embodiment of the overall operation of the communication device 100 in accordance with the present invention. Each of the specific operations according to the nodes identified previously herein will be described in further detail in FIGs. 5 through 9. It will be appreciated by those of ordinary skill in the art that other[[,]] equivalent operations, providing the same or similar results, can be utilized in accordance with the present invention.

Please replace the paragraph 0034 (page 17, line 3 through page 18, line 12) with the following amended paragraph:

[0034] FIG. 5 illustrates one embodiment of the operation of the communication device 100. Specifically, FIG. 5 illustrates the operation of the communication device 100 in utilizing the fixed communication order 345. The process begins with node B. Next, in Step 500, a counter is set to N=1. Next, in Step 505, the process determines whether or not the Nth communication means is stored. For example, when N=1, the communications manager application 140 queries the contacts preferences directory 300 to determine if a first communication means 320 is identified with the contact having the communication means initiated in Step 410 of FIG. 4. When the contact does not have an associated Nth communication means, the process returns to node A of FIG. 4. When the contact does have an Nth communications means associated therewith, the process continues to Step 510 in which the process determines whether or not an automatic connection initiation option has been set. The automatic connection initiation option can be set by the device user via the user interface 135, can be preset when the communication device 100 is programmed during manufacturing, can be preset by the service provider of the communication device 100, can be set via a received signal, or the like. It will be appreciated by those of ordinary skill in the art that the automatic connection initiation option can be activated for all contacts within the contacts directory 200 or alternatively can be activated separately for individual contacts as desired. When the automatic connection initiation option has not been activated in Step 510, the process continues with Step 515 in which the Nth communication means is displayed on the display 130. Next, in Step 520, the process determines whether the device user selects to initiate a communication using the Nth communication means. When the

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device user does not select to initiate such a communication, the process returns to node A of FIG. 4. When the device user selects to initiate a communication using the Nth communication means in Step 520, or when automatic connection initiation has been [[be]] activated in Step 510, the process continues with Step 525 in which the communication device 100 initiates a communication with the Nth communication means. Next, in Step 530, the process determines whether a connection has been established with the Nth communication means. When a connection has been established, the process continues with node C of FIG. 4 as described previously. When a connection is not established with the Nth communication means in Step 530, the process continues with Step 535 in which the counter is incremented to N=N+1. The process then cycles back to Step 505.

Please replace the paragraph 0037 (page 19, line 14 through page 20, line 13) with the following amended paragraph:

[0037] FIG. 8 illustrates one embodiment of the operation of the communication device 100. Specifically, FIG. 8 illustrates the operation of the communication device 100 in utilizing a calendar based communication order. The process begins with node F. Next, the process continues with Step 800 in which the current time 170 is determined. Next, in Step 805, the process determines whether a calendar event has been stored associated with the current time 170. The calendar event, for example, can be stored in the calendar memory 175 or can alternatively be retrieved from a calendar contained within [[with]] a peripheral in communication with the communication device 100. When no calendar event is identified within the current time 170 in Step 805, the process continues to node A of FIG. 4. When a calendar event is identified in Step 805, the process continues with Step 810 in which the process determines whether a set of communication order preferences have been stored with the calendar event. For example, the device user can determine a unique communication order to be associated with the particular timeframe of the calendar event and store that unique communication order along with the calendar event in accordance with the present invention. When no communication preferences have been identified with the calendar event, the process continues to Step 820 in which a default set of preferences is utilized. The default set of

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preferences, for example, can be the fixed communication order 345, the pattern communication order 350, the time based communication order 355, or [[and]] the like[[,]] for the contact. When communication preferences have been identified with the calendar event, the process continues to Step 815 and the unique communication order identified with the calendar event is [[are]] utilized. The process then continues after both Step 815 and Step 820 with node B of FIG. 5.

Please replace the paragraph 0038 (page 20, line 14 through page 21, line 4) with the following amended paragraph:

[0038] FIG. 9 illustrates one embodiment of the operation of the communication device 100. Specifically, FIG. 9 illustrates the operation of the communication device 100 when the device user is provided with the list of communication means available. The process begins with node G. Next, the process continues with Step 900, in which all communication means stored for the contact identified with the communication means in which communication was initiated in Step 410 of FIG. 4. Next, in Step 905, all the stored communication means for the contact are displayed on the display 300. Next, in Step 910, the process determines whether the device user selects one of the displayed communication means. For example, the device user can use the user interface 135 to scroll through the list of communication means stored for the contact and choose one of the listed means. When the device user does not select a communication means in Step 910, the process returns to node A of FIG. 4. When the device user does select a communication means, the process continues with Step 915 in which the communication device 100 initiates communication with the selected communication means. The process then continues with node H of FIG. 4.

Please replace the paragraph 0039 (page 21, lines 5-13) with the following amended paragraph:

[0039] The invention as described herein provides a communication device with intelligent communications management including various options of facilitating the communication by a device user with one or more contacts having one or more contact mechanisms. If a call fails,

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the present invention provides a̲ [[the]] communication device that automatically provides supplemental telephone numbers or messaging addresses that are correlated to a contact directory entry, or are extracted from a set of 'communication connection patterns' that have been recorded by the device. The invention thus provides the user with a method to easily connect to a new number or send a new message.

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